Kindly amend claim 6 as follows:

6. (Once amended) A transducer according to claim 31, wherein the shapes of said electrode fingers generally are not all identical.

Kindly amend claim 7 as follows:

7. (Once amended) A transducer according to claim 31, wherein said at least one interdigitized electrode finger has at least one edge shaped in the form of a curled bracket.

Kindly amend claim 8 as follows:

8. (Once amended) A transducer according to claim 31, wherein said at least one interdigitized electrode finger has at least one edge in the form of a rounded bracket.

Kindly amend claim 9 as follows:

9. (Once amended) A transducer according to claim 31, wherein said at least one interdigitized electrode finger has at least one edge in the form of a refracted line.

Kindly amend claim 10 as follows:

10. (Once amended) A transducer according to claim 31, wherein said at least a portion of at least one interdigitalized electrode finger has the shape of a rhombus.

Kindly amend claim 11 as follows:

11. (Once amended) A transducer according to claim 31, wherein said at least one interdigitized electrode finger has at least a portion of one edge in the form of a curled bracket.

Kindly amend claim 12 as follows:

12. (Once amended) A transducer according to claim 31, wherein said at least one interdigitized electrode finger has at least a portion of one edge in the form of a rounded bracket.

2

Kindly amend claim 13 as follows:

13. (Once amended) A transducer according to claim 31, wherein said at least one interdigitized electrode finger has at least a portion of one edge in the form of a refracted line.

Kindly amend claim 14 as follows:

14. (Once amended) A transducer according to claim 31, wherein said at least one interdigitized electrode finger has trapezoidal form.

Kindly amend claim 15 as follows:

15. (Once amended) A transducer according to claim 31, wherein said at least one interdigitized electrode finger has at least a portion of one edge in the form of a bell.

Kindly amend claim 16 as follows:

16. (Once amended) A method for weighting a SAW interdigital transducer having a plurality of interdigitized electrode fingers comprising providing at least one internal surface edge of at least one interdigitized electrode finger with a shape defining a ratio between its width and its arrangement-periodicity, and also defining variable spacing between each of said fingers, such that said ratio varies substantially along each of said fingers, said variable ratio inducing SAW velocity dispersion along said fingers, thereby providing a weighting mechanism to control weighting coefficients for achieving desired frequency characteristics of the IDT.

Kindly delete claim 24 without prejudice.

Kindly amend claim 25 as follows:

25. (Once amended) A method for weighting a SAW interdigital transducer having a plurality of interdigitized electrode

3

fingers, said method comprising providing at least one internal surface edge of at least one interdigitized electrode finger with a shape defining a ratio between its width and its arrangement-periodicity, and also defining variable spacing between each of said fingers, such that said ratio varies substantially along each of said fingers, said variable ratio inducing SAW reflection coefficient dispersion along said fingers, thereby providing a weighting mechanism to control weighting coefficients for achieving desired frequency characteristics of the IDT.

Kindly amend claim 26 as follows:
26. (Once amended) A method for controlling the diffraction spreading of SAW beams in a SAW interdigital transducer having a plurality of interdigitized electrode fingers, using the SAW velocity dispersion effect comprising providing at least one internal surface edge of at least one interdigitized electrode finger with a shape defining a ratio between its width and its arrangement-periodicity, and also defining variable spacing between each of said fingers, such that said ratio varies substantially along each of said fingers, said variable ratio inducing SAW velocity dispersion along said fingers, thereby providing a mechanism to control the diffraction spreading for achieving desired frequency characteristics of the IDT.

Kindly amend claim 27 as follows:
27. (Once amended) A SAW interdigital transducer having a plurality of interdigitized electrode fingers, said transducer being weighted by having at least one internal surface edge of at least one of said interdigitized electrode fingers having a shape defining a ratio between its width and its arrangement-periodicity, and also defining variable spacing between each of said fingers, such that said ratio varies substantially along each of said fingers, said variable ratio inducing

4

dispersion of both SAW velocity and SAW reflection coefficient along said fingers, thereby providing a weighting mechanism to control weighting coefficients for achieving desired frequency characteristics of the IDT.

Kindly amend claim 28 as follows:
28. (Once amended) A transducer according to claim 31, wherein said transducer has a non-rectangular profile.

Kindly amend claim 29 as follows:
29. (Once amended) A transducer according to claim 31, wherein the distances between adjacent electrode finger pairs are varied.

Kindly amend claim 30 as follows:
30. (Once amended) A transducer according to claim 31, wherein said transducer is apodized by providing electrode fingers having varying lengths.

Kindly add new claim 31 as follows:
31. (New) A weighted SAW inter-digital transducer (IDT) having at least two internal electrode fingers shaped and arranged with a predetermined periodicity, each of said fingers having a shape defining a ratio between its width and its arrangement-periodicity, and also defining variable spacing between each of said fingers, such that said ratio varies substantially along each of said fingers, said variable ratio inducing SAW velocity dispersion along said fingers, thereby providing a weighting mechanism to control weighting coefficients for achieving desired frequency characteristics of the IDT.

5